

## The State of New Hampshire

## Department of Environmental Services



Michael P. Nolin Commissioner

> April 26, 2004 Letter of Deficiency DSP#04-026

Mrs. Carolyn Goodwill 33 Christian Avenue #200 Concord, NH 03301

RE: Branch Mallego Dam #015.14, Barrington

Dear Mrs. Goodwill:

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that play a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on October 28, 2003 and a follow-up inspection was conducted on April 14, 2004. During these visual inspections and/or file reviews, the following deficiencies were observed:

- 1. Brush and small trees had recently been removed from the upstream and downstream embankments of the dam;
- 2. Although water was flowing over the concrete spillway slab making observation difficult, based on the last inspection on July 30, 2002 when the spillway was dry, the concrete is still cracked with water migrating beneath the slab. Mr. Kittredge mentioned that repairs are planned for July 2004 when water is low;
- 3. The toe of the dam to the right of the primary spillway was wet, indicative of seepage through the dam. This area should be monitored. Any increase in seepage should be reported to DES;
- 4. The downstream stone wall along the right end of the dam, in the vicinity of the emergency spillway, was unraveling. Mr. Kittredge mentioned plans to place stone, 6-8" in diameter along the downstream face of the dam in order to stabilize the area. This approach is acceptable to DES and would enhance the stability of the emergency spillway and dam structure;
- 5. There was erosion of the emergency spillway noted as a result of overtopping during the April 2, 2004 storm event; and
- 6. There is no operation and maintenance plan (O&M) on file. A draft plan has been prepared based on discussions with Mr. Kittredge. Please review and if in agreement sign and return to our office.

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DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

## September 1, 2004:

- 1. Repair the concrete slab on the principle spillway that was cracked with water migrating beneath the slab;
- 2. Repair the downstream stone wall along the right end of the dam that is unraveling;
- 3. Repair any erosion within the limits of the emergency spillway;
- 4. Review and sign, if acceptable, the enclosed draft O&M plan; and

## On a continuing basis:

5. The toe of the dam to the right of the primary spillway was wet, indicative of seepage through he dam. This area should be monitored. Any increase in seepage should be reported to DES.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. Please call or write to our office if the repairs are completed ahead of the aforementioned schedule so that DES may schedule a follow-up inspection. Unless notified otherwise, DES will conduct the follow-up inspection on or after the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the bottom of the cover page.

Sincerely,

Dam Safety Engineer

Attachments Guideline for an O&M plan, Draft O&M plan, DB8, DB13, Sketch Illustrating Deficiencies cc: Gretchen R. Hamel, Legal Unit Administrator

Town of Barrington

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